102233

Item ID:	D2935		Accept	*N900040100*	Setup	Start	*NS1*
Revision ID:						Stop	*NS2*
Item Name:	Saddle Spacer						

| Start Date: | 5/27/13 | Start Qty: 40.00 | *40* | | Cust Item ID: | | | |
| Required Date: | 6/08/13 | Req'd Qty: 40.00 | *40* | | Customer: | | | |

Reference:

	Run	Start	*NR1*
Approvals:	Process Plan: _MLJ_	Date: 13-05-30	Tooling: _____	Date: _____			
	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____	Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D2935	Rev B								
100		0.00							
100 Waterjet	FLOW WATER JET	0.00				40	0	____	JM 13-07-21
FLOW CNC Waterjet 6061.080	**Memo** 1-Cut as per Dwg D2935 Dwg Rev:__B__ Prog Rev:__B__ 2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110 QC		0.00				40	0	____	JM 13-07-21
Quality Control	**Memo**								
120	QC8- Inspect parts - second check	0.00							
120 QC	**Memo**	0.00 13-7.22				40			
Quality Control									

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____	DISPOSITION		AGAINST DEPARTMENT/PROCESS				
Part No. _____	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐		
	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐		
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
NCR No. _____	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐		

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric to O/S
☐ Cracks
☐ Crushed/Crimped
☐ Cuffs
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Ripples in Bend
☐ Torque Waves in Extrusion
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damaged
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drill Holes
☐ Drawing
☐ Finish
☐ Folio

☐ Grain
☐ Hardware
☐ Inspection Incomplete
☐ Instructions Incomplete/Unclear
☐ Maintenance
☐ Mislabeled
☐ Misread
☐ Offset
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions

☐ Ovalized
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge

☐ Pressure/Forced
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled

☐ Other

_____

_____

_____

D 1 0 2 2 3 3   *102233*

Item ID:	D2935	D2935		Accept	*N90004010N*	Setup	Start	*NS1*
Revision ID:							Stop	*NS2*
Item Name:	Saddle Spacer							
Start Date:	5/27/13	Start Qty: 40.00	*40*		Cust Item ID:			
Required Date: 6/08/13		Req'd Qty: 40.00	*40*		Customer:			
Reference:								

						Run	Start	*NR1*
Approvals:	Process Plan: _____	Date: _____	Tooling: _____	Date: _____			Stop	*NR2*
	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____				

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00				40	76	13-7-24	
140 *140* QC Quality Control	QC3- Inspect Part Finish Memo	DAS 27 B724 0.00 0.00				40			
150 *150* Packaging Packaging	Identify as per dwg & Stock Location: ST 22 Memo	0.00 0.00				40X			13-7-27

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

| Work Order: _____ |
| Part No. _____ |
| NCR No. _____ |

DISPOSITION

Rework	☐
Scrap	☐
Use-as-is	☐
Work Order Update	☐

AGAINST DEPARTMENT/PROCESS

Skid-tube	☐	Crosstube	☐	Water Jet	☐	Engineering	☐
Machining	☐	Small Fab	☐	Prod. Eng. Coor.	☐	Quality	☐
Thermoforming	☐	Finishing	☐	Rec/Store/Packaging	☐	Other	☐
Large Fab	☐	Composite	☐	Supplier	☐		☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐	Bending
☐	Centre Not Concentric to O/S
☐	Cracks
☐	Crushed/Crimped
☐	Cuffs
☐	Heat Treat
☐	Inspection Strip in Tube
☐	Ripples in Bend
☐	Torque Waves in Extrusion
☐	Turning Sequence
☐	Wave/Twist in Tube

General

☐	Bend
☐	BOM/Route
☐	Broken/Damaged
☐	Burrs
☐	Contamination
☐	Countersink
☐	Cut Too Short
☐	Drill Holes
☐	Drawing
☐	Finish
☐	Folio

☐	Grain
☐	Hardware
☐	Inspection Incomplete
☐	Instructions Incomplete/Unclear
☐	Maintenance
☐	Mislabeled
☐	Misread
☐	Offset
☐	Out of Calibration
☐	Out of Sequence
☐	Outside Dimensions

☐	Ovalized
☐	Over/Under tolerance
☐	Part Incorrect
☐	Part Lost/Missing
☐	Part Moved
☐	Positioned Wrong
☐	Power Loss/Surge

☐	Pressure/Forced
☐	Temperature/Cure
☐	Weld
☐	Wrong Stock Pulled
☐	Other

_____
_____
_____

Item ID:	D2935			Accept	*N9000040100*	Setup	Start	*NS1*
Revision ID:							Stop	*NS2*
Item Name:	Saddle Spacer							

Start Date:	5/27/13	Start Qty: 40.00	*40*		Cust Item ID:			
Required Date: 6/08/13		Req'd Qty: 40.00	*40*		Customer:			
Reference:								

Approvals: Process Plan: _____ Date: _____   Tooling: _____ Date: _____

QC: _____ Date: _____   SPC (Y/N): _____ Date: _____

Run   Start   *NR1*

Stop   *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC21- Final Inspection - Work Order Release	0.00							
160								MLJ 13-07-26	
QC	Memo	0.00							
Quality Control									

MF
13-7-24

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order: _____	**DISPOSITION**		**AGAINST DEPARTMENT/PROCESS**				
Part No. _____	Rework ☐		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	
	Scrap ☐		Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐	
	Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	
NCR No. _____	Work Order Update ☐		Large Fab ☐	Composite ☐	Supplier ☐		

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

May-27-13 12:41:50 PM

Work Order ID:	102233											
Parent Item:	D2935							Start Date: 5/27/13		Required Date: 6/08/13		
Parent Item Name:	Saddle Spacer							Start Qty: 40.00		Required Qty: 40.00		

Comments: IPP A00.06.06New IssueEC
IPP Rev:B   Now 6061-T6 06-06-23 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.080 6061-T6 .080 Sheet		Purchased	No			100	sf	0.0000	0.0507	~~2.134736~~ 2.5		Jm 13-07-21	

m - 126309   126309

NCR: Yes / No

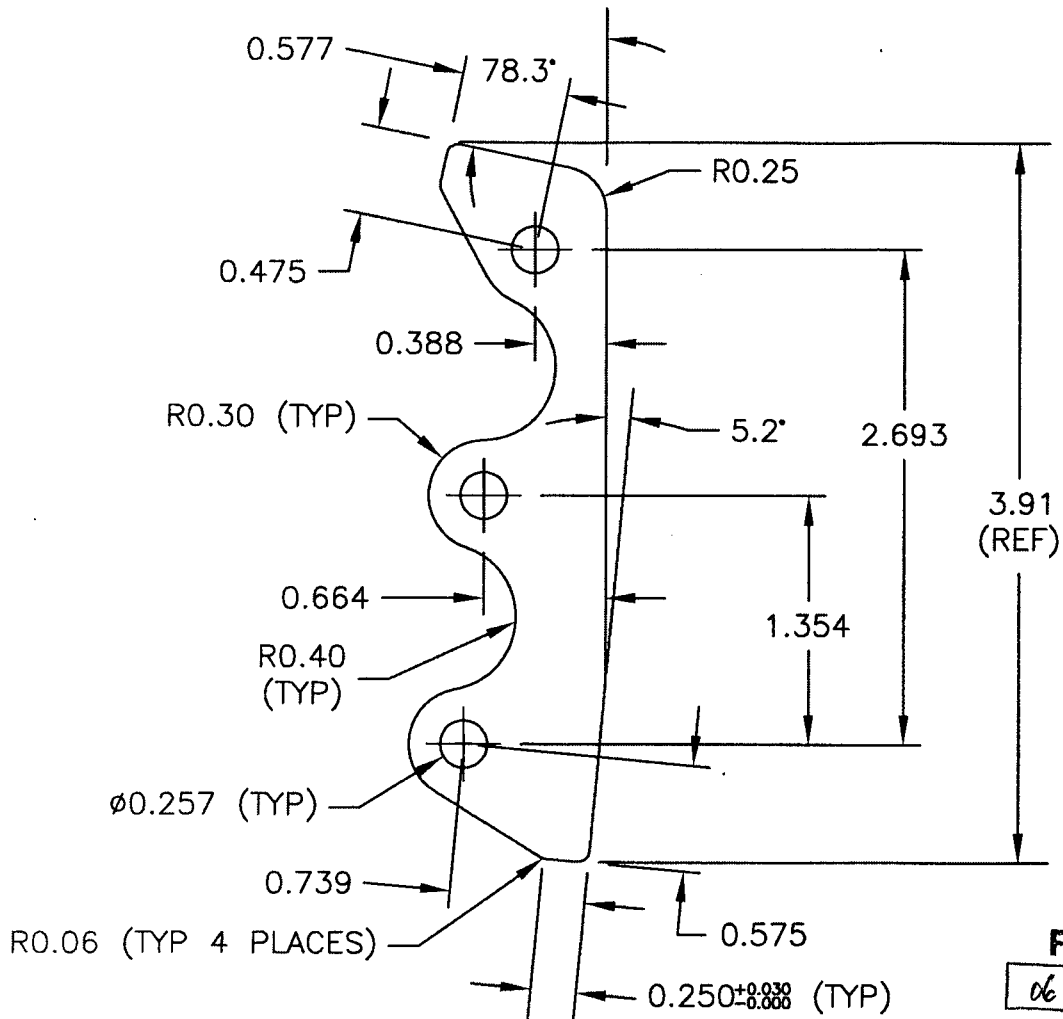# WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: Date:

Work Order: _____	DISPOSITION		AGAINST DEPARTMENT/PROCESS				
Part No. _____	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐		
	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐		
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
NCR No. _____	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐			

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	_____	
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	_____	
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions	_____	

DART AEROSPACE LTD		Work Order:	102233
Description: Saddle Spacer		Part Number:	D2935
Inspection Dwg: D2935 Rev: B			Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

[X] **First Article**   [ ] **Prototype**

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.257	+0.006/-0.001	0.259"	—		V	Jkm01
3.91	+/-0.030	3.91"	—		V	
1.354	+/-0.010	1.356"	—		V	
2.693	+/-0.010	2.693"	—		V	
0.250	+/-0.010	0.254"	—		V	
R0.25	+/-0.030	0.25"	—		RG	

Measured by:	Jm	Audited by:	QAs 27	Prototype Approval:	N/A
Date:	13-07-21	Date:	13 7 20	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	06.06.05	New Issue	KJ/JLM	
B	06.06.23	Dwg Rev. changed	KJ/JLM	

0.577 78.3°

R0.25

0.475

0.388

R0.30 (TYP)   5.2°   2.693

3.91 (REF)

0.664   1.354

R0.40 (TYP)

Ø0.257 (TYP)

0.739

R0.06 (TYP 4 PLACES)   0.575

0.250 +0.030 −0.000 (TYP)

RELEASED
06.06.20

NOTES:
1) MATERIAL: 6061-T6 (PER QQ-A-250/11 OR AMS 4025 OR AMS 4027) 0.080" THICK
    (REF DART SPEC M6061T6S.080)
    OR
    5052-H32/H34 (PER QQ-A-250/8 OR AMS 4016) 0.080" THICK
    (REF DART SPEC M5052H32S.080)
2) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) BREAK ALL SHARP EDGES 0.010 TO 0.020
5) ALL DIMENSIONS ARE IN INCHES